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Emerging Economies in Global Value Chains

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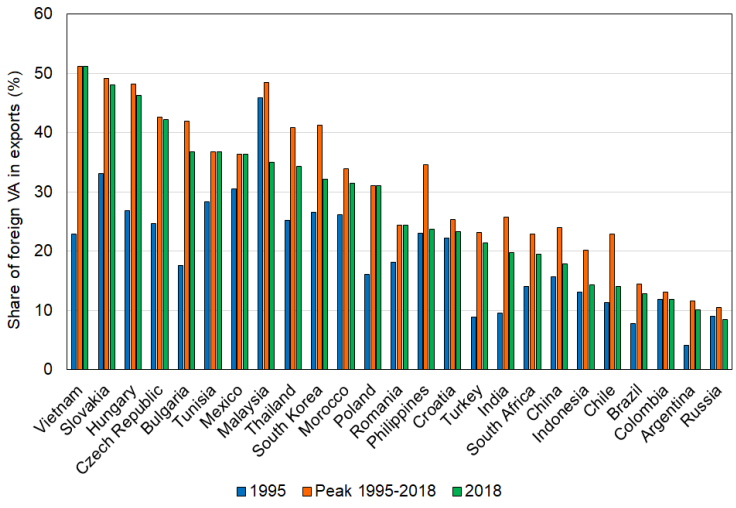
- The integration of emerging countries, particularly China, into world trade has upended the trade landscape and global production chains over the last 30 years.
- To illustrate this process, we can look at emerging economies through three distinct, but interrelated perspectives: (i) their level of integration into global value chains (proxied by the import content of their exports); (ii) the degree of specialisation of their exports; and (iii) their share of low-end versus high-end exports.
- An analysis of international value-added trade data suggests that emerging countries followed a strategy of integrating into global trade in successive stages. Like China, these countries initially benefited from being specialised according to their respective comparative advantages in global value chains, before diversifying their production and exports and ultimately specialising again as they upscaled their manufacturing capabilities. This latter phenomenon has been accompanied by a movement up the value chain for these sectors of specialisation, a process called re-insourcing by which a country gradually lowers its dependence on the foreign inputs needed to produce such goods (electronic components, machines) by increasing the share of local manufacturing in exports.
- Consequently, the relationship between a country's level of integration into global value chains and its level of economic development does not appear to be linear. A trend towards re-insourcing certain stages of production of global value chains is currently under way in several emerging Asian countries, raising the question of what will come next for their integration.

Share of foreign value-added (VA) in exports (%)



Source: OECD (TiVA).

1. With emerging countries integrating into trade, global production chains have become more fragmented

Up until the 1980s, global trade flows were dominated by developed economies (North-North trade). Since that era, trade between emerging and developed economies (South-North trade), as well as that between emerging economies (South-South trade), has risen sharply.[1] Mirroring advanced economies' declining share of global exports, which fell from 80% in 1991 to 60% in 2018, emerging countries' share of global exports doubled from 20% to 40% over the same period.

China has been at the centre of this trade growth. Its share of global exports has increased sixfold in the span of 30 years (reaching 13% of global exports in 2018, making it the world's top exporter), thus upgrading its status from a minor player in global trade to that of one of the world's main customers and suppliers. Between 1991 and 2018, global exports rose more than 457%, with China accounting for 69 percentage points of this increase.[2] The sectoral composition of Chinese exports has also changed significantly in the last three decades, with agricultural products and textiles representing a declining share of exports, while the share of manufactured and electronic goods has grown.

Analysis of the growth of South-North trade flows and global value chains has revived interest in the Ricardian theory of comparative advantage in international trade, which appears to have guided the development of emerging economies' trade integration, breaking it down into successive stages. The fragmentation of production chains based on countries' respective comparative advantages has enabled emerging economies to integrate into global trade by specialising in certain stages, rather than in every stage, of a product's manufacturing process, in a break with what was done in the past.[3] Over 80% of exports from the BRIC (Brazil, Russia, India and China) countries in 2010[4] "were contributed by products with relative comparative advantages".[5]

Some papers[6] suggest that there is a non-linear relationship over time between the level of specialisation and the level of development (see also Chart 2), indicating a trade integration process carried out in successive stages. While comparative advantages and specialisation are determining factors initially, as exporting countries continue to develop, begin manufacturing new product lines and add new stages of production, their exports become more diversified and subsequently they further specialise in a new stage of production involving higher value exports.

From an international perspective, however, the level of integration into value chains varies according to whether or not countries export commodities, as value-added trade data[7] shows, providing an idea of the level of integration of economies into global value chains. Thus, in 2018, the share of domestic value-added (VA) in exports was only 48% in Vietnam, 65% in Malaysia, 63% in Mexico and 66% in Thailand (all countries which export few commodities), whereas in commodity-exporting countries, where the value-added of the extractive sector weighs heavily in exports, this percentage share is much higher (86% in Indonesia, 87% in Brazil, 90% in Argentina and 92% in Russia).

(1) Countries categorised as "emerging" in this paper include Algeria, Argentina, Bulgaria, Brazil, the Czech Republic, Chile, China, Colombia, Croatia, Egypt, Hungary, India, Indonesia, Morocco, Malaysia, Mexico, the Philippines, Poland, Russia, Saudi Arabia, Slovakia, South Africa, South Korea, Thailand, Turkey, Tunisia, Ukraine and Vietnam.
(2) WTO data.
(3) "Trading for Development in the Age of Global Value Chains", World Development Report 2020, World Bank.
(4) L. Chen (2012), "The BRICs in Global Value Chains: An Empirical Note", *Cuadernos de Economia*, vol. 31.
(5) A country is said to have a comparative advantage in the export of a product when the share of the product in the country's exports exceeds the share of total exports of the product in global exports.
(6) See J. Imbs and R. Wacziarg (2003), "Stages of Diversification", *American Economic Review*, vol. 93, no. 1.
(7) See F. Berthaud (2017), "France's Trade in Value Added", *Trésor-Economics* no. 207 and (2018), "Le commerce en valeur ajoutée", Working Document no. 2018/4.

2. In China and South Korea, the trade integration process occurred in successive stage

Several trends emerge when we take a closer look at international value-added trade data available in the Organisation for Economic Co-operation and Development's (OECD) Trade in Value-Added (TiVA) database (which includes data on many advanced and emerging countries for the 1995-2018 period).

First, our analysis of this data reveals a bell-shaped trade integration pattern for a large number of emerging economies. For a majority of the emerging countries included in the sample, trade integration reached a peak level during the first decade of this century. In fact, for the emerging economies included in the database, the average share of imported value-added in exports rose regularly between 1995 and the onset of the 2008 financial crisis. This average went on to decline between 2012 and 2018, however. Several Asian countries reached their "peak" level of integration relatively early on: Indonesia in 1998, Malaysia in 2000, the Philippines in 2004 and Thailand in 2005.

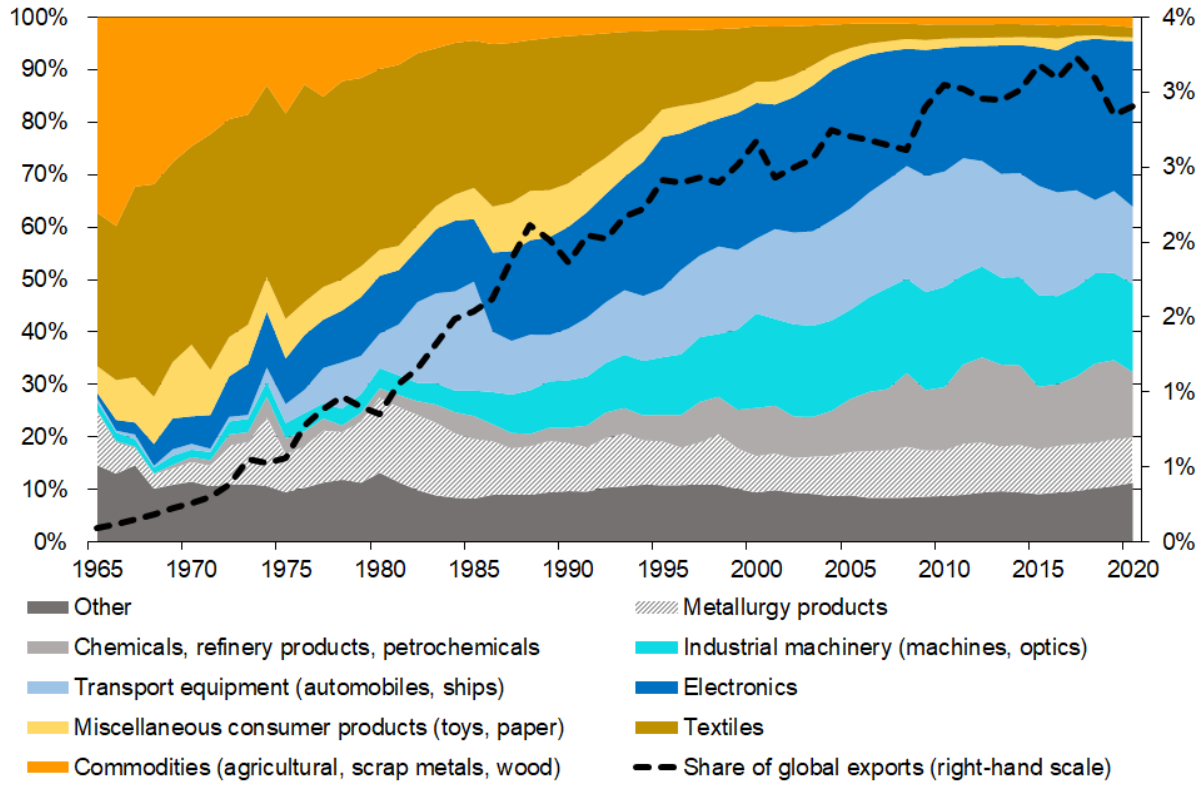
Despite the major exogenous factors that impacted this period (i.e. a financial crisis and a commodities boom) and affected both GDP per capita growth and the process of integrating into global value chains, the pattern observed is consistent with a trade integration process in successive stages, with countries making the shift from being specialised in the area of their comparative advantage to diversifying further, and ultimately "re-specialising" in a limited number of high value-added sectors. This latter development has been accompanied by a movement up the value chain in each country's sectors of specialisation, a process called re-insourcing by which a country gradually becomes less dependent on the foreign inputs necessary for producing such goods (electronic components, machines) by increasing the share of local manufacturing.

Second, China appears to be one of the first emerging economies to have experienced a decline in its trade integration, as measured by the share of foreign value-added in its exports. The country reached peak integration in 2004, bringing into fuller view the successive stages of integration it had previously completed. Since then, China has increasingly re-insourced various stages of production, signalling a gradual shift away from a processing trade model[8] in favour of higher value manufacturing.[9]

The approach observed in most emerging countries, therefore, is comparable to the route China and, earlier on, South Korea took, particularly where their gradual specialisation towards high-tech products is concerned. In the case of South Korea, low-capital-intensive and low-technology-intensive sectors such as commodities, textiles and other light manufactured goods accounted for 72% of its exports in 1965, but by 2020 the share of these products had dropped to a mere 5%. Over the same period of time, electronics and transport and industrial equipment, i.e. products that are more capital- and technology-intensive, rose from a 3% to a 63% share of exports (see Chart 1).

(8) Re-export trade made up between 47% and 55% of China's exports from 1992 to 2005, compared to 32% in 2018.
(9) According to the *Centre d'Etudes Prospectives et d'Informations Internationales* (CEPII), a French institute for research into international economics, China's share of high-priced exports increased from 10% in 2000 to 18% in 2018, with its share of low-priced exports falling from 72% to 53% over the same period.

Chart 1: Change in sectoral composition of South Korean exports and overall share of global exports



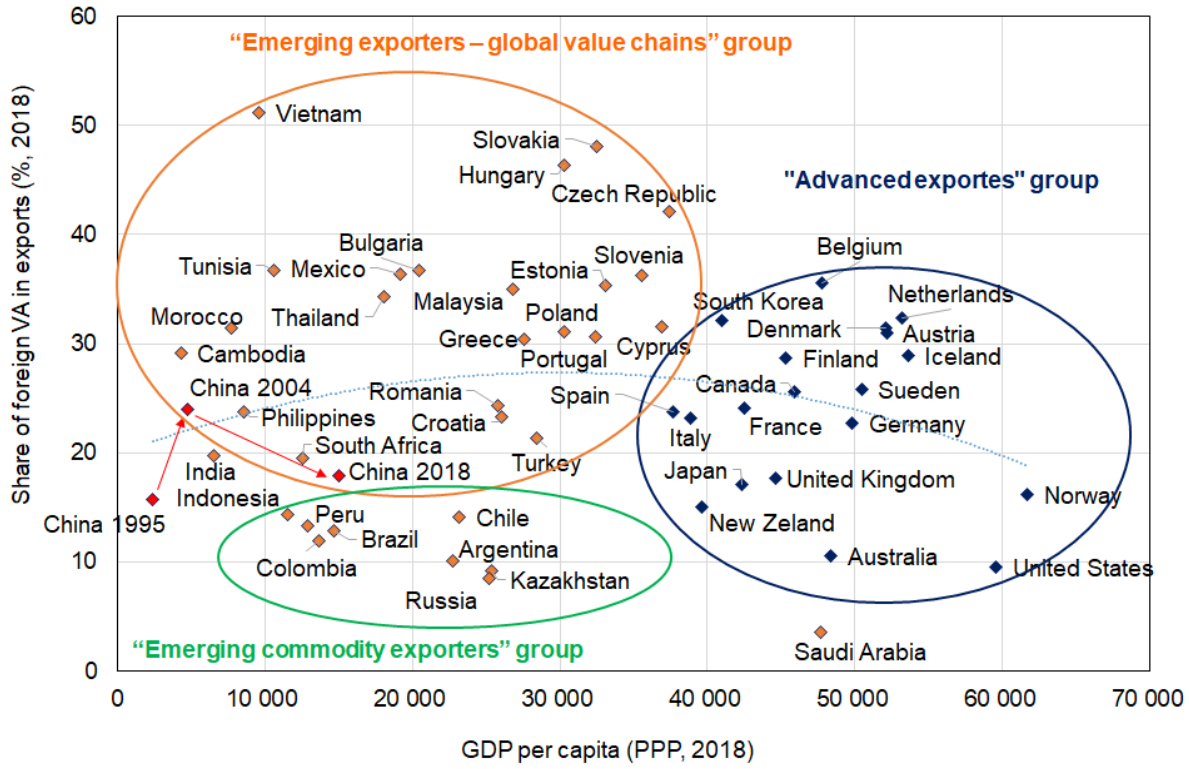
Source: UN Comtrade.

This trend towards re-insourcing can be explained by shifts in comparative advantages as a country continues to develop, but also occasionally by proactive sectoral policies (attracting foreign investment, providing sector-specific subsidies and supporting exporter companies).[10] The scope of this re-insourcing trend depends necessarily on the economic and geographic features of the country in question: in some sectors China can consider taking on a large portion of the value chain domestically (from extracting raw materials to manufacturing final products and intermediate components), but this is not possible for countries lacking in natural resources or the critical mass needed to pursue such a degree of autonomy, thus requiring them to maintain a large share of foreign value-added in their output and exports.

Third, by comparing a country's level of economic development and level of trade integration (as measured by the foreign value-added in exports), three categories of countries emerge (see Chart 2):

(10) R. Cherif and F. Hasanov (2019), "The Return of the Policy that Shall Not Be Named: Principles of Industrial Policy", IMF Working Paper.

Chart 2: Trade integration and level of development



Source: OECD (TiVA).

a. Countries, such as Brazil and Russia, that primarily export commodities and have a relatively low GDP per capita and a small share of foreign value-added in their exports (producing commodities requires few inputs).

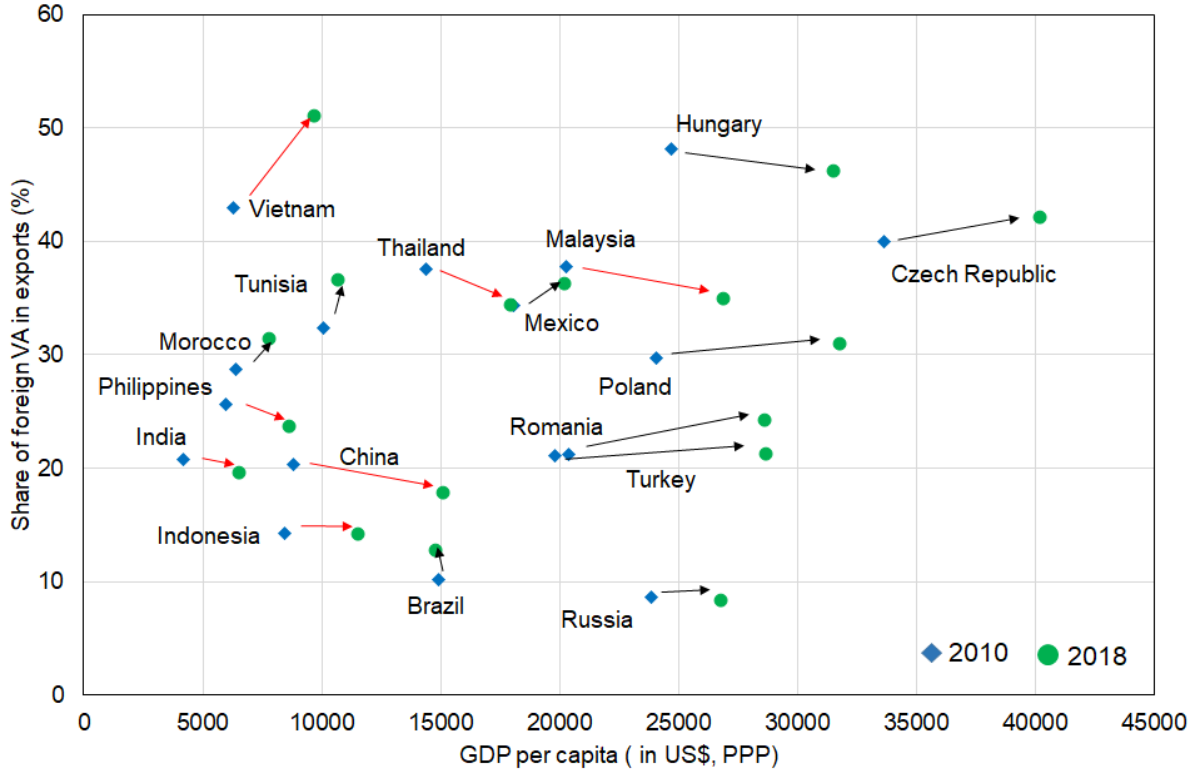
b. Countries, such as those in Asia and emerging Europe, that have a relatively low GDP per capita but whose higher level of integration into global value chains translates into a larger share of foreign value-added in exports.

c. The most affluent countries, being more specialised in producing high value-added goods and services than emerging economies which are highly integrated into global value chains, are less dependent on imports.

Comparing the data over time more generally confirms that emerging Asian countries showed earlier and more extensive signs of a trend towards the relocation of their exported value-added than other world regions.

In fact, following China's example, over the last decade such emerging countries as India, Malaysia, the Philippines and Thailand were able to reduce the share of imported foreign value-added in their exports the most dramatically (see Chart 3). Conversely, the share of imported foreign value-added in exports has been rising in some commodity-exporting countries (Brazil, Mexico, Russia), as well as in emerging economies that are more integrated into European value chains (the Czech Republic, Morocco, Poland, Romania, Tunisia, Turkey).

Chart 3: Changes in trade integration, 2010-2018

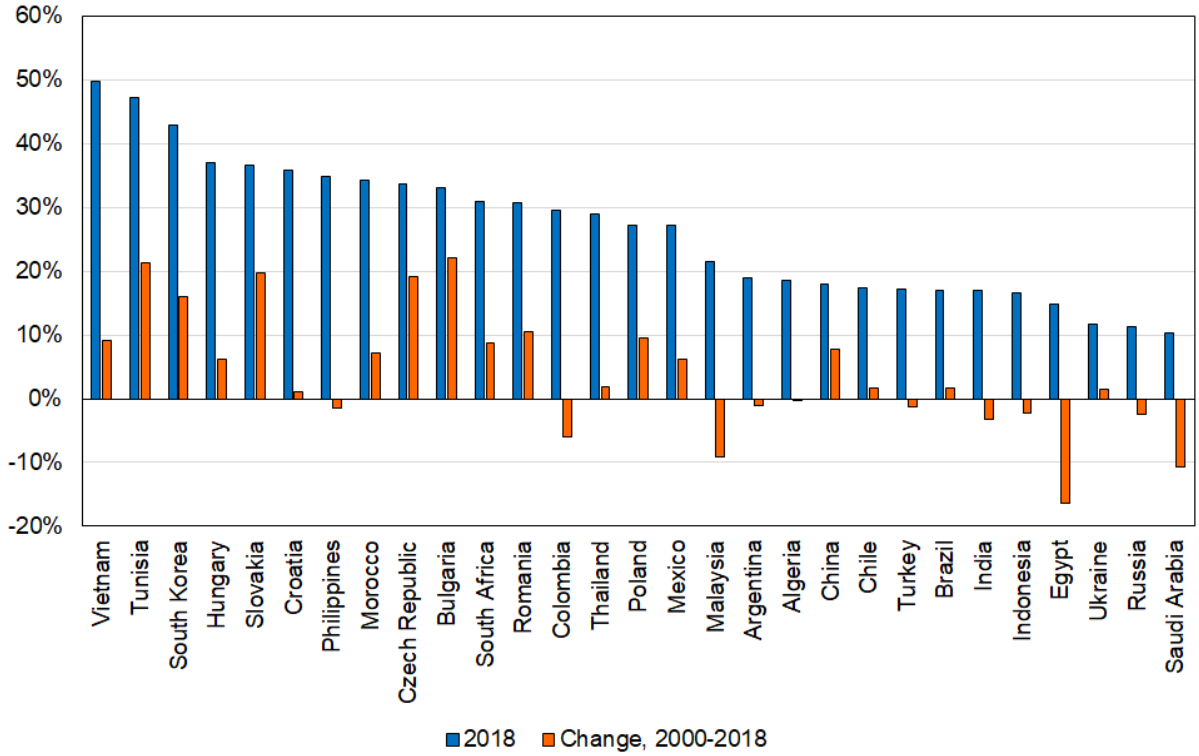


Source: OECD (TiVA).
How to read this chart: Red arrows indicate emerging Asian countries, while black arrows indicate all other emerging countries.

Concurrent with the twin trends of trade integration and value chain relocation, most emerging countries experienced a shift towards producing higher value exports, although this was not the case for commodity-producing countries. In fact, only the latter group reported a lower proportion of high-value exports in 2018 compared to 2000 (see Chart 4).

Another two years and the release of data for 2020 will be required before we can tell whether recent disruptions, such as the COVID-19 crisis in Asia and Sino-American trade tensions, will bolster the trend towards insourcing value chains domestically, or if trade integration will be slowed in lesser-developed countries and in central and eastern Europe.

Chart 4: Share of high-priced exports



Source: CEPII (WTFC database), DG Trésor calculations.
How to read this chart: Exports are classified into three price categories: low, medium and high. For example, in 2018, 50% of Vietnam's exports were made up of products from the highest price category.

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